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Yoga for Balance

For most of her adult life, Anita was "The Strider"—she regularly walked for miles with such a strong and confident stride that she could run up three flights of stairs without a break. She was also relatively flexible and pretty much fearless. Then a few years ago as she was striding down the street, she twisted her ankle on a piece of gravel and hit the sidewalk hard, banging up her left knee and hip and wrenching her back. By the time she had healed, she was very stiff—and she'd gotten used to a very sedentary lifestyle. As she says, "Walking was more of a shuffle and walking two blocks felt like a mile." She eventually did start walking again, little by little, but a second fall on some winter ice completely "evaporated" every tiny bit of confidence she had built up. After that, her fear of falling again made her withdraw from all physical activity, and she was basically housebound. She says, "I thought I was at the end of my healthy life, with a rigid body and a terrified mind."

That's when she reached out to us. We recommended three different sequences for Anita to practice: a basic well-rounded sequence for improving strength, flexibility, and balance, a back-care practice, and a stress management practice. Nina also recommended that Anita spend as much time as possible barefoot.

This program helped Anita recover both her physical abilities and her confidence. She says:

> The moment I started practicing, I knew that I had the tools to positively effect a change and that translated, almost immediately, into regaining my confidence. And once I got my flexibility back, it was as if there was a mind-body reconnection as well. Although I sometimes backslide, when I do attend to the poses and sync my mind with my body, I feel pretty much invincible![1]

Balance is the ability to maintain a stable position. It is our third essential physical skill, because regardless of your age, maintaining your ability to balance is essential for safely going about your daily life. After all, you need to keep your balance when you're grabbing that bottle of peppercorns from the top shelf, carrying the basket of clean laundry up the stairs, or bending over to weed the tomato plants. Besides allowing you to maintain your independence, maintaining your ability to balance also allows you to continue participating in many of the activities that you love or that add richness to your life, such as spending time out in nature or traveling. And, of course, the ability to balance also helps prevent falls, which can be a serious—sometimes life-threatening—problem for older people.

Our ability to balance is actually surprisingly complex. Your brain takes in information from various systems in your body to determine how to move you back into balance. You also have postural reflexes that automatically kick in to keep you upright. But even when all balance systems and postural reflexes are functioning perfectly, your body won't be able to respond well to the information it's receiving from your brain if you're very weak or stiff. So maintaining strength, flexibility, and agility are key for maintaining your ability to balance. Maintaining your ability to focus mentally in the face of distraction is also essential because in the real world there's a lot going on all around us.

About Balance

Because understanding what influences your ability to balance will help you see what you can and cannot improve with yoga, let's take a closer look at how your brain gets the information it needs to keep you balanced. ("How Yoga Helps" on page 7 describes which of these factors you can improve with yoga.)

Vestibular System

The three canals in your inner ears provide your brain with information about changes in the position of your head, triggering reflexes that allow

your body to maintain a steady posture. For example, from your head position, your vestibular system can tell if you're beginning to twist or spin or if you suddenly lurch forward, and it alerts your brain so you can self-correct. It also tells your brain if you're standing with your feet at different levels, such as when you're climbing up a rocky path or navigating a set of stairs.

Somatosensory System

Your senses provide your brain with information about the environment outside of your body, so you know where and how to move. For example, if you are walking outside, are you walking on solid ground or sinking into mud? Your senses include vision, touch, hearing, taste, and smell as well as proprioception (see page 7).

Visual System

Your eyes provide your brain with information about the position of your body relative to other objects in your environment, including their depth, velocity, and motion. You use this information to orient yourself. For example, when you're outside, you use the horizon to tell what "upright" is and when you're inside, you use the angles of the room in which you're standing to do the same. If you have poor eyesight, have you noticed what happens to your ability to balance when you're not wearing your glasses or contacts? Or have you ever closed your eyes in Tree Pose?

Touch

The sensors on your skin allow you to feel the outside environment. For example, your feet take in information about the type of surface you're walking or balancing on. And even if you're not on your feet, whatever part of your body is in contact with the ground provides feedback about the ground. For example, if you're balancing on one knee and one hand in Hunting Dog Pose, you'll feel the difference between practicing on the floor versus a stack of blankets. Touch also allows you to feel the environment around you, whether it's a strong wind pushing you slightly off balance or a wall that you're touching for support.

Proprioception

Sensors in all of your muscles and joints allow your brain to feel from the inside how your body is positioned, how it is moving through space,

and where your body parts are relative to each other. The classic test for this is to close your eyes and then use your hand to touch your nose. In fact, proprioception is what allows you to walk around in the dark. When you're balancing, your proprioceptors tell your brain where your body is in the space so you know how to make adjustments to move back into balance.

Postural Reflexes

These reflexes automatically correct the orientation of your body when it shifts from being upright. They kick into action when unexpected events throw you off balance to try to prevent you from falling. Imagine turning and almost (or actually) bumping into someone, walking down a slick ramp and suddenly slipping, or reaching a crack in the sidewalk that trips you up. These reflexes also kick into action during everyday balancing activities, such as when you are getting dressed, standing on a chair in the kitchen to reach the upper shelf, or walking on the raised edge of a curb just for the fun of it.

Fortunately, yoga is particularly good at helping you maintain and even improve your ability to balance. But before discussing how you can use yoga to improve your balance, let's have a look at how aging affects this essential physical skill.

Aging and Balance

I think we all know that problems with falling—and worrying about falling—are common in older people. This is because aging affects all of your balance systems, as well as your ability to respond quickly and appropriately to balance challenges. But because so many factors contribute to your ability to balance, you can often compensate for losses in one area by cultivating other aspects of balance. So let's take a closer look at how aging affects each of those factors and which ones you can influence with your yoga practice.

Vestibular System. The functioning of our inner ears gradually declines with age. The inner ear hair cells are unable to repair themselves and gradually die off, which ultimately affects your vestibular system's ability to keep you balanced. Although you cannot change your vestibular system itself, you can compensate for these losses by working on other aspects of balance, including your somatosensory system and your four essential physical skills.

Vision System. Age-related changes to the lenses of your eyes make it harder to focus quickly. In addition, eye problems that become more common as we age, such as cataracts, loss of peripheral vision, glaucoma, and macular degeneration, negatively affect vision. Of course, for eye conditions that are helped by prescription glasses, wearing the glasses when you need to balance can help compensate for these losses. For conditions that glasses cannot help, you can compensate for loss of vision by using your vestibular and somatosensory systems to balance (after all, blind people can balance).

Other Senses. Aging can gradually slow the relay of information between your brain and body, and this can affect both your sense of touch (your ability to take in information about the surface you're balancing on) and your proprioception (your awareness of where you are in a space).

A special problem often associated with aging is a lack of sensitivity in your feet. If you have spent years wearing shoes almost all the time, your feet become much less sensitive, which makes you less aware of the surface on which you're walking or balancing. But practicing yoga allows you to spend much more time with bare feet, and the poses where you stand on your bare feet, including all standing poses and balancing poses where you balance on one leg, will make your feet more sensitive and responsive.

A sedentary lifestyle or lack of variety in movement can reduce your proprioception over time, causing you to lose balance when you make an unusual movement. Yoga is very effective for improving proprioception because you practice a wide variety of poses and movements while focusing on your internal sensations.

Strength. As we discussed in chapter 3, age-related muscle atrophy causes loss of strength over time. This loss of strength affects your ability to balance because if you get knocked off balance, you can't easily move back into balance. Improving your strength through a well-rounded yoga practice will also improve your ability to balance.

Flexibility. As we discussed in chapter 4, your muscles and joints become stiffer with age, so your range of motion is reduced. This stiffness can affect your ability to balance because you can't easily move from one position to another. So you can be knocked off balance more easily and will have a harder time moving back into balance afterward. Improving your flexibility through a well-rounded yoga practice will also help your ability to balance.

Nervous System. Age-related changes to your nerves can cause them to relay information more slowly between your brain and body. This slowing of reaction time can affect your coordination and speed of movement, as well as the strength of your muscle responses, all of which will affect your balance. You can counteract the slowing of reaction time by frequently practicing balance poses—the repetition alone will help! You can also work on agility practices, initially starting at a slower pace and gradually increasing your speed over time.

In addition, the postural responses that keep you upright (or try to!) are a result of information sent to your brain from your eyes and inner ears, the pressure sensors on your feet, and your proprioceptors. So as we age, our postural reflexes can gradually slow down. Practicing a variety of yoga poses, especially poses that cultivate flexibility, balance, and agility, can improve postural reflexes that have become rusty from disuse and improve the speed of your responses.

How Yoga Helps

Fortunately, balance is a skill that you can cultivate, and the modern asana practice is one of the best disciplines we know for improving it. In addition to working on strength and flexibility—both of which are necessary for good balance—you can practice balancing itself in a wide variety of poses. And practicing in the safety of your yoga space allows you to challenge your balance in a controlled environment before you take on real-world challenges.

If your balance is currently shaky, you can use our variations of balance poses with props, such as chairs and walls, to improve your ability to balance comfortably and safely.

And for the times you do fall—hey, it happens to the best of us—your practice will increase your chances of falling "well." Baxter's yoga students who have fallen and lived to tell the tale report that their reaction times seemed faster, and they had the ability to choose how and where to fall. And often when they began to fall, they "caught themselves" before actually going all the way down.

Balance Poses

Balancing is a skill you can learn and relearn. Just practicing balance poses helps improve your balance. These poses will also improve your proprioception and sense of touch, your postural reflexes and reaction times, and your focus and confidence.

Because balance poses are an integral part of any active practice, you'll find that almost every active yoga practice includes one or more balance poses. Yoga balance poses include poses where you balance on other parts of your body besides one or two feet, including poses where you balance on two hands, on one hand and one foot (Side Plank Pose), on your shins (Hunting Dog Pose), on your sitting bones (Boat Pose), and so on.

There are many different ways of practicing the balance poses—some of which are accessible to people with poor balance—so you can gradually work your way from the easier versions to the more challenging ones. From there, you can add even more challenges, such as practicing with your eyes closed, varying the surface you're balancing on, and even making up your own poses.

Standing Poses

In addition to practicing balance poses, you can improve balance by practicing a wide variety of standing poses, which place your feet and your body in very different positions. For example, Warrior 1 Pose and Triangle Pose, with the front foot turned out and the back foot turned in and your pelvis in different positions over your legs, challenge your balance in surprising ways. Like balance poses, all these poses will improve your proprioception and sense of touch, your postural reflexes and reaction times, and your focus and confidence.

Sense of Touch and Proprioception

By practicing your yoga poses with bare feet, you improve the sense of touch on the bottom of your feet, which will aid your ability to balance in standing positions. (Spending more time with your shoes off in general will also help with this.) Once you are comfortable with your balance on a wood floor or a thin yoga mat, you can vary the surface on which you practice to further improve your sensitivity. You can also practice poses where you balance on other parts of your body to improve your sense of touch. Practicing mindfully—especially with an awareness of touch—will make you more sensitive overall, which is especially helpful when you're walking on slippery or uneven surfaces.

Doing a variety of poses takes your body into many different configurations, as does moving through flow sequences. Practicing without a mirror—which is typically how we do yoga—allows you to feel all those different positions from the inside out as you sense your own alignment without using your eyes. That will refine your proprioception. To take your proprioception to another level, you can work with subtle alignment cues

or practice with your eyes closed. (To double-check your internal perception of your body position, you can use a mirror periodically or ask for feedback from your yoga teacher.)

Nervous System

You can use your asana practice to support the health of your somatic nervous system in general (see chapter 8) by practicing a wide variety of poses and movement patterns to activate all the nerves on a regular basis and by practicing balance and flow poses to keep your proprioceptors healthy. A regular active asana practice improves blood flow to your sensory nerve receptors and increases space around your nerves.

Confidence and Mental Focus

For some people, just plain fear of losing balance or even falling can compromise their ability or willingness to balance. But yoga allows you to challenge yourself in a safe, controlled environment. The ability to practice balance poses over and over—and when no one is looking—will help improve your confidence. If fear is a big problem, you can use stress management techniques (see chapter 9) to quiet your nervous system before working on your balance.

Practicing balance poses and moving through flow sequences trains your mind as you focus again and again on balancing. But you can also work specifically on mental focus by practicing meditation and breath practices (see chapter 10), which will benefit your balance both inside and outside the yoga room. To take it up a notch, you can even add "distraction" to your balance practice by practicing in a distracting environment, such as at the beach or with kids in the room, or by doing another task while you are balancing, such as tossing a ball from one hand to another.

Using Yoga for Balance

For those of you who are new to yoga—and to balance poses—our list of techniques includes a few basics to get you started. To safely explore balancing poses you have never done before, start by practicing the versions that use props or a wall for support before moving on to the classic pose. If you're fearful, you can practice any pose with your back near a wall so you can lean back against it if you feel yourself losing balance.

Those of you who have already mastered the basic balancing poses need to keep challenging yourselves if you want to keep improving your

balance. So our list of techniques includes recommendations that will allow you to improve your balance for years to come.

Whatever your current level, you should practice poses that challenge your balance with a nonjudgmental attitude, as negative self-talk can sabotage you. As you start to practice, notice your thoughts. If they tend to be negative, such as "I suck at Tree Pose," try consciously taking a more neutral approach, such as, "Let's see what I can do today." Keep in mind that even if you do lose your balance, just by practicing your balance poses you are still benefitting tremendously, so practicing, rather than staying upright, is your real aim.

Techniques for Improving and Maintaining Balance

How Often to Practice. Since you typically only practice a few balance poses in an active practice, it's a good idea to include one or more balance poses in every active practice that you do. However, to avoid injuries from overuse, make sure you vary which balance poses you practice. For example, if you're working on Tree Pose, do that only every other time and try a version of Warrior 3 Pose on alternate days.

How Long to Hold the Poses. Hold your balance poses until you notice your leg or whichever body part is supporting you is quivering and then try to hold for two to three seconds longer. Rest a few seconds before repeating on the other side. If you are only able to hold the pose for ten to thirty seconds, rest briefly after completing both sides and repeat the pose a second time. Over time, gradually work your way up to holds of one to two minutes.

Balance Your Practice. To improve balance, it's important to practice a wide variety of balance poses as well as strength, flexibility, and agility poses throughout the week and month rather than just doing the same poses every day. Besides the standing balance poses, we recommend practicing yoga poses where you balance on other parts of your body. Try Side Plank Pose variations to work on your hands and the sides of your feet. Try Boat Pose variations to work on your sitting bones. Try Hunting Dog Pose to work on your shins as well as your hands. To keep your mind fully engaged and avoid relying on your body memory of past practices, vary the order in which you do your poses.

Mindfulness. Because maintaining awareness while you balance—rather than just throwing yourself into a balance pose and hoping for the best—is what will help you improve, you should mainly practice poses

that are accessible enough so you can practice them mindfully. As you practice, focus on the sensations of being on and off balance and making whatever subtle adjustments are necessary to steady yourself. As you make progress with the accessible poses, you can gradually add in a few more challenging poses or variations.

To develop your proprioception, take time to really feel your own alignment in every single pose that you do. Are your arms even in Warrior 2 Pose? Are your knees actually straight in your standing poses? Is your head really aligned directly over your torso? Then take your proprioception to another level by working with more subtle alignment cues. For example, you could work with your shoulder blades, your collarbones, your inner thighs, or even something more esoteric, such as your psoas muscles (which run from your spine to your inner thighs). Sometimes there is an area you are not used to even sensing, and at first it will be hard to feel something there. But the more you bring your mind to the area, the easier it will be to sense it and eventually to move it.

Challenging Yourself. It's important to continue to challenge your balance and keep moving to the edge of stability where you almost—or even do—lose your balance. You can do this by varying the poses you do, the way you use your vision, the type of surface you balance on, and the amount of distraction in your environment.

Varying Poses. After mastering basic static poses and dynamic sequences, add more challenging poses and practices. You can search out new poses or variations, make up new versions of existing balance poses, or even invent your own balance poses. In general, you should progress from simple poses to more complex poses. After you master all the traditional poses, progress to inventing new versions that challenge your balance. For example, you could modify Tree Pose by shifting your hip toward your standing leg and tipping your torso and arms to your lifted leg side. To challenge yourself with balance in motion, progress to dynamic balance poses, such as dynamic Warrior 3 Pose, or create a dynamic sequence that combines two familiar balance poses, such as Tree Pose and Warrior 3 Pose.

Removing or Changing Vision. After you're comfortable in a balance pose with your eyes open, you can take vision out of the equation. This helps improve both proprioception and your sense of touch as you have to rely on your internal sense of where you are in space as well as your vestibular system to balance. Try practicing in a darkened room, wearing sunglasses, or keeping your eyes completely closed. You can also

change your vision by keeping your eyes open but changing the position of your head, by looking up or looking down, and by turning your head.

Vary the Surface You Balance On. Once you are comfortable balancing on a stable surface, such as a wood floor or a thin yoga mat, gradually move on to more and more unstable surfaces. Some possibilities include a rug or carpet, a foam mat, a foam block, and even a firm mattress. If it's possible to practice yoga outside, try some poses on the grass or sand. We also recommend practicing on an uneven surface, such as having half your foot on your mat and the other half directly on the floor.

Changing Your Environment. When you're ready for real-world challenges, you can try practicing in a distracting environment, such as at a park or the beach. You can also create a distracting environment in your yoga room by practicing with a talkative yoga friend or inviting some children or pets in to "help" you practice. You can also add "cognitive distraction drills" to your practice by chanting or even tossing a small ball or bean bag around while you balance.

EASY BALANCE PRACTICE

This sequence is designed as a starting practice for those who are new to yoga practice or who have poor balance. To gradually challenge and improve your balance, the poses progress from standing evenly on two feet, to standing asymmetrically, to standing on one foot and then move on to poses that involve balancing on other parts of your body, including your shin, hand, and sitting bones.

As you practice, maintain an even, steady breath and focus on bringing awareness to the parts of your body that touch the floor, keeping them stable.

If you worry about falling, practice near a wall so you can lean against it if you feel you are starting to fall. If you are feeling secure and want to challenge your balance more, try moving your gaze in Warrior 2 Pose and Triangle Pose.

For photos that illustrate the individual movements in Dynamic Arms Overhead Pose and Dynamic Warrior 2 Pose, see the "Dynamic Poses and Flow Sequences" section on page 282. For information on Equal Breath, see page 180.

1. Mountain Pose, version 2, 30–90 seconds

2. Mountain Pose, version 1, 30–90 seconds

3. Dynamic Arms Overhead Pose, 6 times

4. Warrior 2 Pose, any version, 30–90 seconds each side

5. Dynamic Warrior 2 Pose, 6 times on each side

6. Triangle Pose, any version, 30–90 seconds each side

7. Tree Pose, any version, 30–90 seconds each side

8. Warrior 3 Pose, version 2, 30–90 seconds each side

9. Standing Forward Bend, any version, 30–60 seconds

10. Side Plank Pose, version 4, 30–60 seconds each side

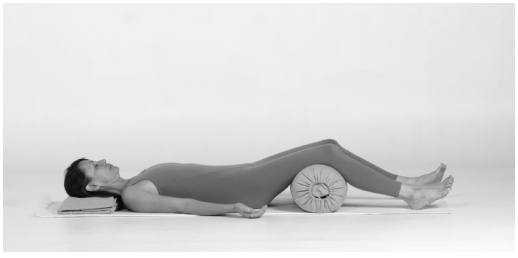
11. Hunting Dog Pose, version 2, 30–90 seconds

12. Boat Pose, version 2, 30–90 seconds

13. Locust Pose, any version, 30 seconds, 2 times

14. Reclined Twist, version 1, 1–2 minutes each side

15. Relaxation Pose, version 4, 1–2 minutes, equal breath practice for 12 breaths



16. Relaxation Pose, version 3, 5–10 minutes

CHALLENGING BALANCE PRACTICE

This sequence assumes that you can do the Easy Balance Practice with some ease and focuses on more advanced balance poses and flow sequences that will help you take your balance abilities to a new level. To add extra challenge, we recommend that you practice some of the standing poses, such as Arms Overhead Pose and Extended Side Angle Pose, with your eyes closed. As those get easier, try closing your eyes in the other static poses, such as Warrior 1 Pose, Boat Pose, and Side Plank Pose. As you maintain each pose, focus your attention on creating a sense of stability and ease. The sequence winds down with Child's Pose and a session of alternate nostril breathing to balance your energy after a challenging practice.

You can find photos for Extended Side Angle Vinyasa in the "Dynamic Poses and Flow Sequences" section on page 282 and instructions for practicing alternate nostril breathing on page 181.

1. Arms Overhead Pose, version 2, 30–90 seconds

2. Arms Overhead Pose, version 2, 30–90 seconds, with eyes closed

3. Extended Side Angle Pose, version 2, 30–90 seconds each side

4. Extended Side Angle Vinyasa, 3 times each side

5. Extended Side Angle Pose, any version, 30–60 seconds each side, with eyes closed

6. Standing Forward Bend, any version, 30–90 seconds

7. Warrior 1 Pose, version 1, 2 or 3, 30–60 seconds each side

8. Tree Pose, version 1, 3, or 4, 30–90 seconds each side

9. Warrior 3 Pose, version 1, 3, or 4, 30–90 seconds each side

10. Standing Forward Bend, any version, 30 seconds

11. Boat Pose, version 1, 3, or 4, 30–90 seconds, 2 times

12. Downward-Facing Dog Pose, any version, 1 minute

13. Side Plank Pose, version 1, 2 or 3, 30–60 seconds each side

14. Child's Pose, version 1 or 2, 1 minute

15. Hero Pose, any version, 2–4 minutes, alternate nostril breath, 2 sets of 6 cycles

16. Relaxation Pose, any version, 5–10 minutes